

A NEW SPECIES OF *OXYGONIA* FROM ECUADOR (COLEOPTERA: CICINDELIDAE)¹

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ABSTRACT: A new species of *Oxygonia*, *O. onorei*, is described based on two male specimens from Las Pampas and La Otonga, Cotopaxi, Ecuador. Distinguishing characters are depicted.

The genus *Oxygonia* Mannerheim, 1837 (type-species: *O. schoenherri* Mannerheim, 1837), is an interesting Neotropical tiger beetle group which so far includes approximately fifteen species, ranging from Costa Rica and Panama (1 species) to Colombia (3 species), Ecuador (11 species), Peru (5 species) and Bolivia (2 species) (Bates 1881-84, Horn 1926, Wiesner 1992). Most of these species occur in the Andean slopes of Ecuador and this country appears to be the center of the evolution and distribution of the genus *Oxygonia*.

Specimens are uncommon in collections and little is known concerning their ecology and behavior. Buckley collected three species in the River Upano area near Macas in Ecuador over one century ago and found his specimens chiefly on mossy stones in the bed of rapid streams (Bates 1872). Recent observations by Pearson *et al.* (1995) confirm that *Oxygonia* specimens forage on mossy rocks and boulders in the middle of shallow white-water streams. The diurnal species roost at night on leaves of overhanging bushes and trees above the stream surface, while the nocturnal species spend the daytime under rocks and gravel along small to moderate-sized mountain streams and forage on rocks in stream at night.

Most *Oxygonia* species show a remarkable sexual dimorphism in shape and body color, and there is often considerable difficulty identifying both sexes of the various species, especially when associated males and females are not available. However, a systematic review of this genus is presently being made by the second author and there are no described species of which the male is unknown (Kippenhan, in prep.). The purpose of this paper is to describe an interesting new species collected in northwestern Ecuador.

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Oxygonia onorei NEW SPECIES

(Fig. 1 a, b, c)

TYPE MATERIAL. Holotype (male) from Las Pampas, Cotopaxi, Ecuador, May 1988, G. Onore leg., deposited in the collection of the Carnegie Museum of Natural History, Pittsburgh, Pennsylvania. One paratype (male) from La Otonga, 1800m, Cotopaxi, Ecuador, 25 May 1996, A. Paucar leg., in first author's collection.

DIAGNOSIS. The species can be distinguished from all others by its small size (10.5 mm), the testaceous color of the underside and the cleft aedeagal apex.

COLOR. Dorsum metallic brownish bronze, with greenish or blue-violet reflections on head and pronotum. Sides and underside of head and pronotum metallic golden green, with some cupreous reflections; a yellow patch in the middle of pro- and mesosterna. Metasternum, abdominal sterna and elytral epipleura completely testaceous. White elytral markings comprised of a narrow humeral lunule, a short transverse middle band behind front half of elytra and a subapical subtriangular spot. Female unknown.

DESCRIPTION. **Head:** relatively small, metallic dark bronze above with some slight blue-green reflections, golden green below; strong cupreous reflections on genae, clypeus, frons and behind eyes. Surface entirely glabrous, a single sensory seta near middle edge of each eye; vertex very finely striated, some shallow transverse wrinkles on neck. Eyes bulging outward and upward, with a rounded moderate excavation between. Labrum short, transverse, black with an unpigmented subsquare patch on either side of middle; anterior margin excavated in the middle with a fairly substantial central tooth protruding outwards and two small lateral bumps; two pairs of submarginal setae, first one at sides of central tooth, second one inside lateral apical angles of labrum. Mandibles black, rufous on the apical and inner teeth. Labial and maxillary palpi basally testaceous, tinged with metallic brown on last segments. Antennae rather long, reaching nearly the middle of the elytral length; extreme base of scape testaceous, scape and articles 2-4 black with some violaceous reflections, glabrous, antennomeres 5-11 brownish-black, evenly and finely pubescent.

Prothorax: pronotum about as long as wide, rounded at sides, maximum width near the middle, with the front lobe very short in proportion; color metallic dark bronze with violaceous reflections, some golden green or cupreous reflections in front and hind transverse grooves. Surface completely glabrous, very finely transversely striate, the striae shallow, almost effaced on disk; midline fine but distinct, slightly excavated behind. Pro- and mesosternal pieces golden green, glabrous, with some cupreous reflections; a yellow patch in middle of pro- and mesosternum. Metasternum and metepisterna completely testaceous, glabrous, with scattered patches of pearly lustre.

Elytra: purple-brownish shining bronze throughout, completely covered with shallow, evenly-spaced, small round punctures with metallic green or cupreous reflections; some larger foveae near base and front part of suture. Surface uneven, with a strong depression near suture on front third of disk, a second depression on inside part of middle spot, and a third one near apex. Elytral maculation white, consisting of a narrow humeral lunule (only posterior end visible from above), a subrectangular, transverse, middle band behind front half of elytra (extended from near side margins to middle of disk) and a subtriangular hind spot near the subapical margin of elytra (not reaching sutural angle) (Fig. 1a). Elytral apex ended in a strong protruding sutural spine; microsculptures present. Epipleura yellow-testaceous.

Abdomen: sterna completely testaceous, glabrous with scattered translucid patches; a single pair of sensory setae near hind edge of 3rd, 4th and 5th visible sterna.

Legs (only pro legs and femur of right meso leg remain in the male holotype): coxae and trochanters yellow, the former with some white pilosity on sides; femora testaceous below, more or less tinged with metallic green above, with a dark black ring at "knees". Tibiae and tarsi of forelegs shining black.

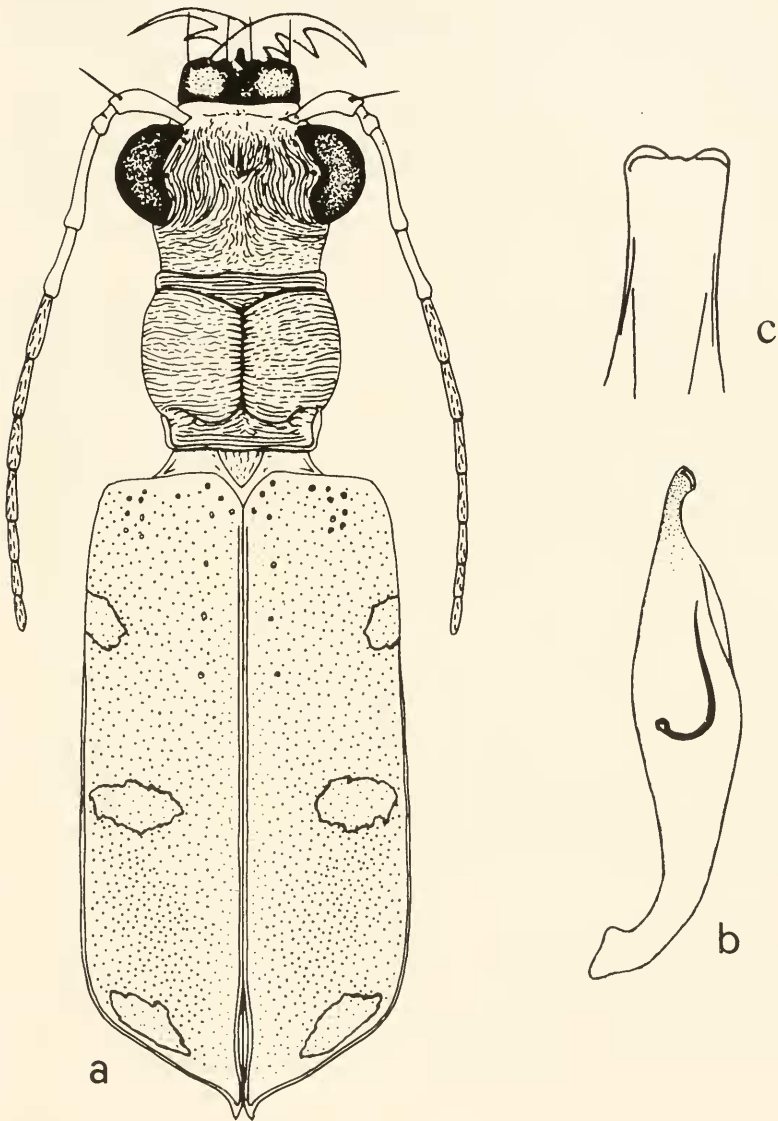


Fig. 1. *Oxygonia onorei* n.sp., male holotype from Las Pampas, Cotopaxi, Ecuador: a. habitus; b. aedeagus (right side); c. apex of aedeagus (dorsal view) .

Genitalia: Male aedeagus rather small, tapering, evenly enlarged in the middle, with a short spatulate apical knob, slightly curved upwards (bi-lobate in dorsal and ventral views) (Fig. 1 b,c).

Length: 10.5 mm (without labrum).

ETYMOLOGY. The species is named after Professor Giovanni Onore, Director of QCAZ (Instituto de Zoología, Pontificia Universidad Católica, Quito, Ecuador), who collected the single male holotype and kindly submitted it for identification.

DISTRIBUTION. Western Andean slopes of northern Ecuador.

REMARKS. Only two male specimens of *O. onorei* n.sp. are available thus far. However, these specimens are distinctive enough to be described as a new species. The shape of the aedeagus and flagellum is similar to the group of *O. vuillefroyi* Chaudoir (Kippenhan, in prep.), but the cleft apex is unique within the genus. The color of the underside and other features (such as the apically knobbed aedeagus with small "J" shaped flagellum) suggest that this species is most closely related to *O. nigricans* W. Horn and *O. oberthueri* W. Horn (Kippenhan, in prep.) and can be placed between.

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